

## **REMARKS/ARGUMENTS**

Applicants would like to thank Examiner Elahee for his time and courteousness during the interview conducted January 26, 2010. During the interview, the Applicants and the Examiner discussed the grounds for rejection discussed below.

Claims 41-58 and 63 were previously pending in this application. Claims 41-58 and 63 stand rejected in a non-final Office Action under 35 U.S.C. § 112, first paragraph. According to the Office Action, a notice of allowance was withdrawn in light of new grounds for rejection. In response to the above-identified Office Action, Claims 41, and 56 have been amended. Applicant respectfully seeks reconsideration of the application in view of the amendments above and the remarks set forth below.

### **A. Objections to the Claims**

Within the office action, Claims 41 -55 have been objected to for reciting the limitation “the headset including a handset receive path.” During the interview of January 27, 2010, the functionality of the headset having a handset receive path was discussed. The specification supports a headset having a handset receive path:

“The analog integrated circuit 200 is coupled to the telephone handset port 202 through a 4-wire line interface. This interface allows for the establishment and selection of the 2-wire each send (Tx) and receive (Rx) line pairs. As is well known, the send and receive pairs are frequently not the same two lines in the port and may often share a common return signal line.” [Specification, Page 7. Lines 8-13]

Similarly, the element cited in Claim 56, a “headset including a headset receive path” is supported by the above cited reference.

Claims 57 and 58 were objected to for an element lacking proper antecedent basis. By the above amendments, proper antecedent basis may be found.

### **B. Rejection Under 35 U.S.C. §112, First Paragraph**

Claims 41-58 and 63 of this application stand rejected under Section 112 for failing to comply with the written description requirement. Within the Office Action, Examiner states that

the claims contain subject matter including a switch matrix settable to *any* of a plurality of switch configurations which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention at the time the application was filed.

During the interview on January 27, 2009, Applicants and Examiner proposed amendments to the independent Claims 41, 51, 56, 57 and 63 to replace the word “any” with the word “each” in order to overcome the rejection that a switch matrix settable to any of a plurality of switch configurations is not enabled by the specification.

As discussed in the interview, a switch matrix settable to *each* of a plurality of switch configurations is supported throughout the specification. The disclosed invention is able to set the switch matrix to couple appropriate signal lines in order to couple analog devices, such as a fax machine through a digital PBX phone system.

Within the office action, Claims 41-58 and 63 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Examiner does not find support for “automatically determines which of the plurality of signal lines from the handset port comprise the handset port receive path.” According to the office action, the specification, in page 17 lines 5-13, does not specify whether transmit output ports/ lines are the claimed “handset port comprising the headset receive path.”

In the specification as filed, under control of the digital MCU 100 (Fig. 7), the addressable latch (Fig. 8) manipulates the switch array 2 by sequentially coupling pairs of line input ports until a CO dialtone is sensed by the digital MCU 100 in the receive channel. (Present specification, page 13, lines 19-27). The present specification also states that:

The SIT “Automated 800 Learning Sequence” begins by searching for the preamble sent by the Host. Once the preamble is selected, the proper receive lines are located. The receive channel sensitivity is then adjusted in comparison to a receive level reference. Upon locating the proper receive lines, the transmit lines are selected and their sensitivity is adjusted in comparison to a transmit level reference signal.

(Present specification, page 7, lines 9-13). The present specification further states that:

A receive signal Rx REF OUT of the analog integrated circuit 200 is coupled to the analog/digital (A/D) input of the digital MCU 100 and provides a sample of the input

signal which the analog integrated circuit 200 receives from the telephone base unit. The digital MCU 100 uses this information to determine if the appropriate line configuration has been selected and to control the receive and transmit channel sensitivities.

A signal TONE OUT from the digital MCU 100 is coupled to an input TXREF of the analog integrated circuit 200 and allows the digital MCU 100 to provide a 1 KHz calibration transmit tone, through the analog integrated circuit 200, to facilitate the appropriate selections of the transmit lines and transmit channel sensitivity setting.

(Present specification, page 7, lines 18-27). The above description confirms that a digital MCU (control logic), coupled to a switch array (switch matrix), automatically determines which of the plurality of receive or transmit lines (signal lines) from the handset port interface comprise the receive path, determines an appropriate (preferred) switch configuration from among a plurality of switch configurations based upon which of the plurality of lines from the handset port interface comprise the receive path, and sets the switch array (switch matrix) to the appropriate (preferred) switch configuration, the appropriate (preferred) switch configuration coupling the handset port receive path to a headset receive path or other accessory configured to work with the base unit through appropriate signal lines. For at least these reasons, one of ordinary skill in the art would recognize that the Applicant had possession of the claim limitation, "...a control logic, coupled to the switch matrix, that automatically determines which of the plurality of signal lines from the handset port comprise the appropriate signal lines, determines a preferred switch configuration from among a plurality of switch configurations based upon which of the plurality of signal lines from the handset port comprise the handset port receive path, and sets the switch matrix to the preferred switch configuration, the preferred switch configuration coupling the handset port receive path to the headset receive path" in Claim 41. Therefore, Claim 41 is fully supported and described in the specification and overcomes the rejection.

As discussed in the Interview of January 27, 2010, ample support is provided throughout the specification to support the automatic detection system. By the above amendments to the independent Claim 41, 51, 56, 57 and 63, Applicants further clarify the automatic detection method and apparatus.

As shown above, the present specification clearly and unambiguously teaches all the limitations of the claims. Applicant respectfully asserts that the rejection under 35 U.S.C. §112 should be withdrawn.

**Conclusion**

For the reasons given above, the Applicant respectfully submits that the Claims 41-58 and 63 are in a condition for allowance. Should the Examiner have any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,  
HAVERSTOCK & OWENS LLP

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By: /Thomas B. Haverstock/  
Thomas B. Haverstock  
Reg. No.: 32,571  
Attorneys for Applicants